

CLAIMS

Although not amended, all claims are reproduced below for convenience.

1.-8. (previously canceled)

9. (previously amended) A method of fabricating a capacitor structure on a semiconductor substrate, said method comprising:

forming a metallic bottom plate over the semiconductor substrate;

forming a dielectric layer overlaying the bottom plate;

forming over the dielectric layer a top plate having a smaller area than said bottom plate, said top plate having a perimeter; and

forming at least one insulating sidewall spacer placed against said perimeter of said top plate and overlaying a portion of said dielectric layer.

10. (original) The method of Claim 9, and further comprising:

prior to forming said at least one insulating sidewall spacer, etching said top plate to expose said dielectric at said perimeter of said top plate.

11. (previously amended) The method of Claim 9, wherein:

said method further comprises forming a conductor embedded in a the semiconductor substrate; and

forming the bottom plate comprises forming the bottom plate overlaying and in electrical contact with the conductor.

12. (original) The method of Claim 11, wherein forming a conductor comprises forming a copper damascene structure.

13. (original) The method of Claim 11, wherein forming said bottom plate comprises forming a conductive barrier layer in contact with said conductor.

14. (previously amended) The method of Claim 9, wherein said step of forming a top plate comprises forming a metallic plate.

15. (original) The method of Claim 9, wherein forming the dielectric layer comprises forming a silicon dioxide layer.

16. (original) The method of Claim 9, and further comprising forming an insulating cap overlaying said top plate.

17. (previously amended) The method of Claim 16, wherein said insulating cap has a perimeter coextensive with said top plate, and wherein forming said at least one insulating sidewall spacer comprising forming said at least one insulating sidewall spacer against said perimeter of said insulating cap.

18. (original) The method of Claim 9, wherein forming at least one insulating sidewall spacer comprises forming at least one insulating sidewall spacer on a top surface of the dielectric layer.

19. (original) The method of Claim 18, wherein forming at least one insulating sidewall spacer comprises forming at least one insulating sidewall spacer overlaying a portion of said bottom plate.

20. (previously amended) The method of Claim 9, and further comprising:
forming a copper damascene conductor in a the semiconductor substrate underlying said bottom plate.

21. (previously entered) The method of Claim 9, and further comprising forming an etch stop layer overlaying said semiconductor substrate prior to forming said bottom plate, wherein at least a portion of said bottom plate overlays said etch stop layer.

22. (previously entered) The method of Claim 16, and further comprising forming a conductive via through said insulating cap and in electrical contact with said top plate.